

What is claimed is:

1. An immunologically active peptide comprising at least 15 consecutive amino acids selected from the amino acids in the following sequence:

VWGIRQLRARLQALETLIQNQQLNLWGXXKGKLIXYTSVKWNTSWSGR,

wherein X is C or S.

2. The peptide of claim 1, wherein said at least 15 consecutive amino acids are selected from the amino acids in the following amino acid sequence:

RLQALETLIQNQQLNLWGXXKGKLIXYTSVKWN

wherein X is C or S.

3. The peptide of claim 1 which binds antibodies against retroviruses of the HIV type.

4. The peptide of claim 1 comprising from 20 to 30 consecutive amino acids.

5. The peptide of claim 1 which further comprises, at one or both ends of the peptide, one or more sequences of amino acids, wherein said sequences are not taken from the amino acid sequence of the retrovirus MVP5180/91.

6. The peptide of claim 1, wherein X is C.

7. The peptide of claim 6, wherein C represents a cysteine residue in an oxidized state.

8. The peptide of claim 6 comprising the amino acid sequence RLQALETLIQNQQLNLWGCKGKLIC.

9. The peptide of 8, wherein C represents a cysteine residue in an oxidized state.

10. The peptide of claim 6 comprising the amino acid sequence NQQLNLWGCKGKLICYTSVKNW.

11. The peptide of claim 10, wherein C represents a cysteine residue in an oxidized state.

12. The peptide of claim 1 comprising the amino acid sequence RLQALETLIQNQQLNLWGSKGKLIS.

13. A diagnostic kit for detecting an antibody against a virus that causes immune deficiency comprising the peptide of claim 1.

14. The kit of claim 13 further comprising at least one control antibody which has a known binding affinity for said peptide.

15. The kit of claim 14 further comprising written instructions for using said kit.

16. A diagnostic composition for detecting in a sample an antibody against a retrovirus that causes immune deficiency, the diagnostic composition comprising the peptide of claim 1 and a detectable label.

17. The diagnostic composition of claim 16, wherein said peptide is detectably labeled.

18. A method of detecting in a sample an antibody against a retrovirus that causes immune deficiency, the method comprising contacting said sample with the diagnostic composition according to claim 16, and detecting the presence of antibody bound to said diagnostic agent as a result of said contacting.

19. An immunogen comprising (a) an amount of the peptide of claim 1 and (b) a physiologically-acceptable excipient therefor, wherein said amount is sufficient to elicit an immune response that protects a susceptible mammal against retrovirus infection.

20. A method for the immunization of a mammal against retrovirus infection, comprising administering to said mammal an effective amount of the immunogen of claim 19.

21. An isolated DNA molecule which encodes the peptide of claim 1.

22. A method of detecting in a sample nucleic acids encoding a retrovirus that causes immune deficiency, comprising the steps of: (a) hybridizing a labeled DNA molecule to nucleic acids encoding a retrovirus in said sample, wherein said labeled DNA molecule is prepared by labeling the DNA molecule according to claim 21 with a detectable label, and (b) detecting the hybridizing by means of said detectable label.

23. A method of detecting in a sample nucleic acids encoding a retrovirus that causes immune deficiency, comprising subjecting said nucleic acids to a Polymer Chain Reaction (PCR), wherein said PCR employs at least two oligonucleotide primers that anneal to a nucleic acid encoding a retrovirus that causes immune deficiency,

wherein one of said primers is complementary to a first nucleotide sequence comprising the sequence of the DNA molecule according to claim 21, or its complementary sequence,

wherein the other primer is complementary to a second nucleotide sequence comprising a nucleic acid molecule encoding a retrovirus that causes immune deficiency,

whereby a geometrically amplified product is obtained only when said first and second nucleotide sequences occur within the same nucleic acid molecule encoding a retrovirus that causes immune deficiency.